

CLAIMS

1. A wireless communication handset, comprising:
electrical communications circuitry;
5 a housing disposed about the electrical communications circuitry,
at least a portion of the housing comprising an electro-chromic
material;
a color control circuit coupled to the electro-chromic material portion
of the housing,
10 whereby a color of the electro-chromic material portion of the
housing is variable by the color control circuit.

2. The wireless communication handset of Claim 1, substantially the
15 entire housing comprises the electro-chromic material.

3. The wireless communication handset of Claim 1, a faceplate
20 portion of the housing comprises the electro-chromic material.

4. The wireless communication handset of Claim 1, a bezel portion
of the housing comprises the electro-chromic material.

5. The wireless communication handset of Claim 1, the electro-
25 chromic material comprises an electro-chromic polymer.

5 6. The wireless communication handset of Claim 1, the electro-
chromic material includes an anodically coloring polymer layer and a cathodically
coloring layer separated by a solid-state gel electrolyte layer, the anodically and
cathodically coloring layers disposed between first and second transparent
conducting layers, the control circuit having a first output coupled to the first
transparent conducting layer, the control circuit having a second output coupled
to the second transparent conducting layer.

10 7. The wireless communication handset of Claim 6, the electro-
chromic material includes first and second transparent insulating layers, the first
and second transparent conducting layers disposed between the first and second
insulating layers.

15 8. The wireless communication handset of Claim 1, a user input
coupled to the variable color control circuit, whereby a user can vary the color of
the electro-chromic material portion of the housing.

20 9. The wireless communication handset of Claim 1, the color control
circuit comprising a dc voltage applied coupled across layers of the electro-
chromic material by a variable resistance device.

10. An electronic device, comprising:
electrical hardware;
a housing disposed about at least a portion of the electrical
hardware,
5 at least a portion of the housing comprising a variable input
responsive variable appearance portion,
whereby the variable input responsive variable appearance portion
of the housing changes appearance in response to a variable input.

11. The electronic device of Claim 10, the variable input responsive
variable appearance portion of the housing is a photo-chromic material that
changes color in response to variations in sunlight.

12. The electronic device of Claim 10, the variable input responsive
variable appearance portion of the housing is a thermo-chromic material that
changes appearance in response to variations in temperature.

13. The electronic device of Claim 10, the variable input responsive
variable appearance portion of the housing is a gonio-chromic material that
changes appearance in response to variations in angles of reflected light.

14. The electronic device of Claim 10, the variable input responsive
variable appearance portion of the housing is a light emitting polymer material.

5 15. The electronic device of Claim 10, the variable input responsive
variable appearance portion of the housing is an electro-chromic material, a color
control circuit having a variable voltage output coupled across the electro-chromic
material.

10 16. The electronic device of Claim 15, the electro-chromic material is
an electro-chromic polymer.

15 17. The electronic device of Claim 15, the electro-chromic material
includes an anodically coloring polymer layer and a cathodically coloring layer
separated by a solid-state gel electrolyte layer, the anodically and cathodically
coloring layers disposed between first and second transparent conducting layers,
the control circuit having a first output coupled to the first transparent conducting
layer, the control circuit having a second output coupled to the second transparent
conducting layer by a variable resistance element.

20 18. The electronic device of Claim 15, the electro-chromic material
includes first and second transparent insulating layers, the first and second
transparent conducting layers disposed between the first and second insulating
25 layers.

19. A communication handset, comprising:
electrical communications components;
a housing disposed about the electrical communications
components,
5 at least a portion of the housing comprising an electro-chromic
material;
a user variable control circuit having dc voltage coupled by a
variable resistance device to the electro-chromic material portion of the housing,
whereby a color of the electro-chromic material portion of the
10 housing is variable in proportion to the voltage applied thereto by the control
circuit.

20. The communications handset of Claim 19, the electro-chromic
material is an electro-chromic polymer having transparent conductive layers
coupled to the control circuit, the transparent conductive layers of the electro-
chromic polymer disposed between transparent insulating layers.

21. A method in a wireless communications handset having an outer
housing with a variable input responsive variable appearance property portion,
comprising:

providing a user variable input to the wireless communication
handset;

25 varying a variable appearance property of the variable input
responsive variable appearance property portion of the housing in response to the
user variable input applied to the wireless communication handset.

5 22. The method of Claim 21, providing the user variable input by
selecting a voltage applied by an electrical control circuit having a variable voltage
output coupled to an electro-chromic portion of the housing, varying the variable
appearance property by changing a color of the electro-chromic portion of the
housing in response to a variable voltage applied thereto.

10 23. The method of Claim 21, providing the user variable input by
applying thermal energy to a thermo-chromic portion of the housing, varying a
variable appearance property by changing an appearance of the thermo-chromic
portion of the housing in response to thermal energy applied thereto.